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VOLUME XLIX APRIL, 1950 NUMBER 4

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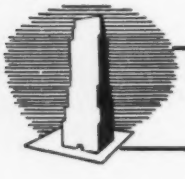

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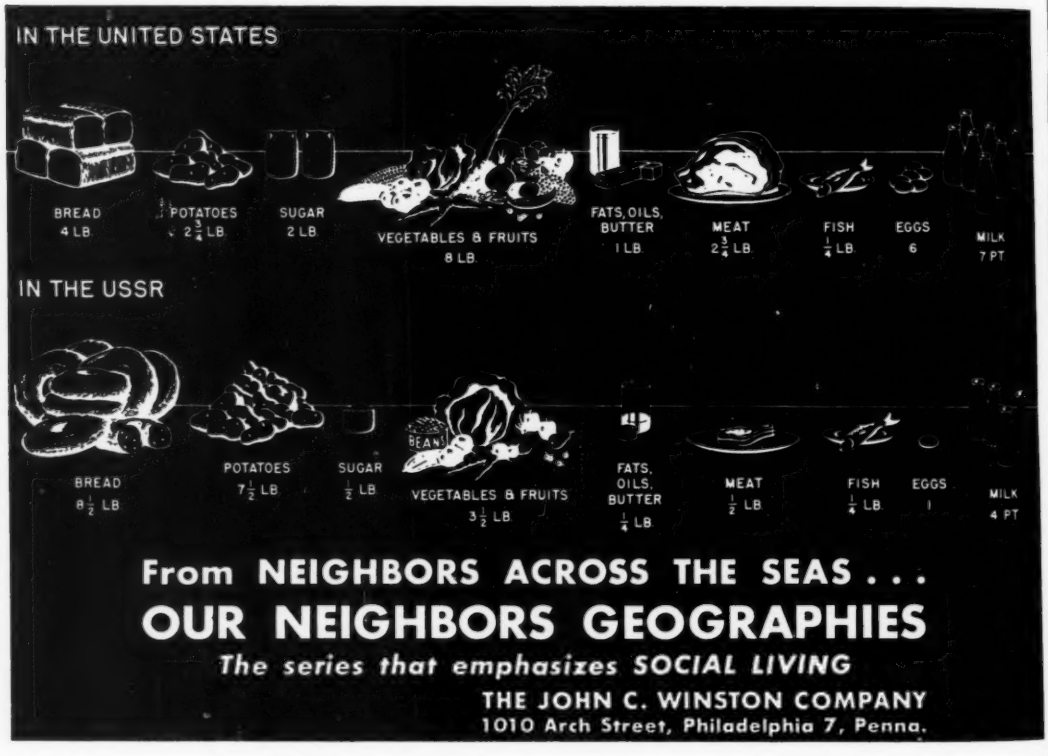

The JOURNAL *of* GEOGRAPHY

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VOLUME XLIX APRIL, 1950 NUMBER 4

AN APPRAISAL OF TEACHING GEOGRAPHY AT THE COLLEGE, UNIVERSITY AND GRADUATE SCHOOL LEVEL*

LEWIS F. THOMAS
Washington University

OBJECTIVES RELATED TO TYPE OF INSTITUTION

The teaching of geography at the college, university and graduate school level shares with some other subjects the inhibitions created by educational objectives of administrators or educational policies of constituencies. Different objectives characterize the Liberal Arts Colleges, Teachers Colleges, Universities and Graduate Schools. Different policies characterize liberal or conservative political, social, economic and religious constituencies.

The Liberal Arts Colleges include those numerous small to medium sized independent institutions whose objective is to educate students with a broad cultural program rather than with a specialized technical curriculum. Many have gained national publicity for their "personalized plans." In their zeal to bring out the potentialities of the individuals many minimize the content of subject matter. One commentator says that the classes are glorified "bull-sessions" where the students talk freely regardless of what they know about the topic. In many cases these objectives are a reaction to the failure of big universities to teach the individual.

The Teachers' College objectives logically are concerned with the "know how" of teaching. Most Teachers Colleges have lived down an early reputation of training students with "how" without any "know." Obviously it requires more than lesson plans, outlines, methods, objectives and results to train successful teachers. Content subject matter is just as essential. The good

*Presented at the Cleveland meeting of the National Council of Geography Teachers, November, 1949.

Teachers' College graduates view with disdain the know-it-all who has no technique of presentation.

The University Department of Geography in general tends to emphasize specialization in knowledge of facts. Detail courses are offered for specialists in allied fields. Special courses by specialists are offered with mounting prerequisites for majors in geography. The over-all objective is to cram the students with facts and figures with little or no regard to intellectual digestion of those facts and figures. It seems to be assumed that there is some mysterious screening whereby the resulting university student possesses superior mental faculties and uses them. Without doubt the university effectively provides abundant information for its students by the cafeteria plan. The students look out for themselves.

The Graduate School Departments of Geography under the stress of the booming market for geographers are resorting to university undergraduate methods. The traditional close relationship between students and faculty is perforce abandoned for the run-of-the-department student and is reserved for the final polishing off of the survivors.

The liberal or conservative policies of some colleges, universities, and graduate schools determine both the content of geography and the methods of teaching geography. In the liberal institutions where freedom of thought and presentation are taken for granted, the teachers and students study the truth, pure and simple. In conservative institutions where certain political, religious or social creeds dominate the curricula, both teachers and students are intellectually restricted. The truth must be studied from the point of view of the constituency with proper high lights and shadows. In certain institutions it is not proper to be communistic, pro-labor, pro-capital, anti-labor, anti-capital, New Deal or Anti-New Deal, liberal or fundamental in religion. Even the procedure suggested by Preston James for handling controversial topics in February, 1949, Journal of Geography would not be good form or even tolerated in some institutions of higher learning. Disciplined learning and thinking are the rule.

The purpose of the preceding paragraphs is to suggest that there are many aspects to teaching geography at the College, University and Graduate School level. Also that within each of these aspects there are merits that the best teacher of geog-

raphy would embody a judicious mixture of the best of each. Certainly there is a great contrast between the teacher who is a sympathetic by-stander in a student free-for-all, and the teacher who says, "what a wonderful job teaching would be if there were no students." I doubt that the American public is willing to pay the salaries necessary to provide the ideal teacher, i.e., one who has a love for students, who has a knowledge of the subject, and who knows how to present his knowledge effectively.

CHARACTERISTICS OF STUDENTS

Let us turn our attention to the students we teachers have to deal with in higher education. Students in Colleges of Liberal Arts, majors in departments of geography in universities, and graduate students by and large study geography because they like the subject. Consequently, they have an excellent scholastic attitude which makes them good material to work with.

Students in Teachers Colleges and in departments of geography in universities where geography is required by a professional school such as Business, take geography because they must. By and large they have a poor attitude which is in terms of grade points and credit hours. Even for graduate degrees, the degree and not the training is the chief goal because it will assure a higher rating on some payroll or pension plan.

Assuming that students have a desirable attitude, their preparation varies greatly because of the differences in the educational programs of elementary and high schools. The battle between "whats" and "whys" reached one of its climaxes in two well-worded and well-thought-out articles by Douglas C. Ridgley in the JOURNAL OF GEOGRAPHY, May and September, 1926 entitled respectively, "The Necessity of Accurate Knowledge About Places," and "Twelve Hundred Selected Place Names." Whether we like it or not, there is a general mixture of geography, history, civics, economics, and sociology commonly immiscible. If there is any truth to the statement that memory develops best in youth, it seems that more attention should be paid to the easy acquisition of knowledge rather than the more difficult integration of knowledge.

This condition of pre-college geography has led to a collegiate teaching attitude which maintains that the students do not know anything. What most of these particular collegiate teachers mean

is that the students do not know where rivers, mountains, countries, and cities are located. They cannot name in order the chief producers of this and that commodity. They do not know many facts or definitions in meteorology, cartography, physiography, geology, pedology, botany, and zoology. In other words, high school graduates are not "quiz kids."

Nature of Geography

Personally I am not alarmed by this situation. In fact, I think that it marks a trend toward a sound core of geographic philosophy at all levels. I know that there are many college teachers who do not agree with me. One of the very interesting sessions at the 1948 meetings of the A.A.G. at Madison, Wisconsin, discussed geography courses in "the smaller departments of geography." One group advocated the thoro drilling in the basic elements of environment, as such, for the proper beginning of geographic study. Another group advocated the "totality of environment" represented by the term regional landscape. One of the things I have learned in about forty years of college teaching is the futility of telling a class that they should learn this bit of knowledge because sometime when they grow up they will find this bit of knowledge essential. As I indicated in a paper before this Council January 1, 1942, entitled "Geography Assignments at the College Level," students will dig up more information and remember it longer if there is some problem to be solved.

It seems to me that a desirable educational procedure would be to survey the subject as a whole at the beginning in order to recognize the component parts and aspects. The story of the four blind men and the elephant is very pertinent. A student could study the leg of the elephant with scientific techniques in great detail and learn a great many valuable facts without having the vaguest concept of the elephant as a whole. So in geography landforms are as important as legs to an elephant. Yet a student could become an expert in landforms without the slighest concept of what geography really is. Let us introduce our students with a college-university level challenge to the world landscape as a whole. Then a student would be able to recognize the geographic features of the earth's surface and their relationships to each other. Then, if the student is particularly interested in geographic legs, or tails, or trunks, or ears, he can specialize to his mind's

content with an understanding of the over-all significance of his work. The pursuit of systematic specialization in a geographic unit creates new fields of study, which tends to disrupt the unity of geography and is centripetal in its effects.

If one glances thru textbooks on "The Teaching of Geography," published about forty years ago, one sees a diagram of a large circle intersecting several other circles labeled with the names of several sciences. The center of the large circle is labeled geography. The explanation states that there is really no such thing as pure geography, it is just a "confederacy" of a large number of subjects. Some people even refer to geography as the hole in the doughnut.

Today there is accepted by many geographers the idea that geography is concerned with the study, description, analysis and explanation of an area whether that area be the world as a whole, or provinces, regions, or districts. That area is a unit and as such benefits by centrifugal forces which integrate and coalesce the various elements. This concept of the core of geography binds itself to the proper objective of higher education—wisdom.

Wisdom is defined by Webster as: "Quality of being wise; ability to judge soundly and deal sagaciously with facts especially as they relate to life and conduct; knowledge with capacity to make due use of it; perception of the best ends and the best means; discernment and judgment; discretion; sagacity." It is the "know how." There are two fundamental aspects to wisdom—knowledge and philosophy. Knowledge may be defined as follows: "A result or product of knowing; that which is known. Specifically any fact or truth, or the aggregate of facts, truths and principles, known, acquired or retained by the mind, information respecting phenomena, causes, laws, or principles; learning, scholarship (example: his knowledge is encyclopedic)." It is the "know what." Philosophy may be defined: "Specifically in popular usage general principles, laws or causes that furnish the rational explanation of anything; the rationale by which the facts of any region of knowledge are explained (as the philosophy of a steam engine)." It is the "know why."

TEACHING TECHNIQUES

The teacher's concept of his job is determinative of his success. A teacher who does not do research, write or produce intellectual concepts is out of place in higher learning. A mere purveyor of

ideas, the same ideas year after year, might as well make recordings to be played by the janitor. Geography is a poor field for stereotyped teaching. Its content and significance change daily.

Therefore, the opportunity of the teacher of geographer is the development in his students of mental skills and techniques which train them in patterns of interpretation and which also develop abilities to originate new skills and patterns. One of the common mistakes of all teachers is the assumption that merely informing the student means that the student understands and can use the information successfully. How often have we heard a student recite a definition letter perfect, yet fail hopelessly to recognize the situation in actuality. No. Mere memory of information is not education. Even the photographic memory that can recite every word in any line on every page may not know what it is all about. After what I thought was adequate ground work I have given in an examination a list of geographic landscape types indicated by place names which, if properly arranged, resulted in pairs of geographically similar places. Too often, horrible pairs appeared in the answers, because the student attempted to memorize facts and paid no attention to the principles or philosophy involved.

Up-to-date coaches in sports have developed teaching techniques which we may well adopt in methodology. Motion pictures are taken of sports events, football games, track and baseball. After the contest, the coaches study the films, and discuss the performance of individuals in a sports seminar. The individual becomes his own best critic, and he appreciates the meaning of the grade he receives for his performance. If he fails and is benched, he knows why. If he keeps his position, he and his team mates know why too. More specifically, suppose a football coach limited his teaching to merely telling the team how to work a play in skull sessions without any practice field experience or scrimmage body contact. You say ridiculous. I say there are too many teachers who are just as ridiculous in the classroom.

I habitually give monthly tests which I think of as training tests. The class period before the test is devoted to explaining the terminology used in the questions, the principles or philosophy involved in the interpretation of certain specific data or situations, which of course are omitted. After the test, the papers are carefully graded. Then a class period is taken for the analysis

of the test, no individuals named, so that the students not only realize the nature of their performance but that of the rest of the class. In order to save time on occasions, the tests are posted on a bulletin board and the students do the test on their own time.

I adopted this method early in my teaching experience, because I soon learned that most students have the concept that a college course is exposure to a vast volume of facts which are to be forgotten as soon as the final examination is over. They are aided and abetted in the concept by many college teachers who, because of ignorance, laziness, or indifference, stress facts, and grade students on the basis of facts. They give true-false tests, four and five pages long, in which the students generally flip a mental nickel and think they are lucky or unlucky by the grade they get. Other teachers do not train their students in tests and pour it on in one grand final examination, in which the typical student wail is, "I didn't know what he wanted." The general student reaction to memory tests is to copy or to bring a pony. No pony that I ever saw told a student how to make a judgment. No two students originating a judgment will express it exactly the same way.

Another college teaching failure in my opinion is the making up of a list of a hundred or more questions with answers for study purposes for a test or final examination, then the selection of a few from the list for the examination. The teacher's excuse is, "Well, if he knows all the answers to those questions he deserves to pass the course." In such a procedure there is no mental development, just cramming. There may be a little excuse for punchboard examinations in large classes but, admittedly, a high school boy can grade the paper, i.e., evaluate the intelligence of the student, by counting how many times the "X" comes up in the holes on the master sheet.

Another college teaching failure is the posting of long reading assignments to cover information that the teacher wants the student to know but he does not have time to give in the classroom. The usual assumption is that the student, if he reads the assignments, understands what he reads and acquires the wisdom to use it on the proper occasion. In the same category, are term papers, many of which are never read, or the pages are just counted, or even a ruler is used to measure its physical thickness.

It may seem that I am opposed to information, knowledge, data,

facts, figures, reading assignments and term papers. I am not. I am opposed to materials which are undigested by the students. If information alone were the goal of education and mind training, students could be educated more cheaply and more comfortably by giving them an encyclopedia.

In upper class courses and graduate schools, there is no excuse for ignoring the student. The objective of graduate teaching should be the promotion of faculty-student relations. The old swimming-hole method of learning to swim has too many casualties. I doubt whether the individual who swims and does not sink is a superior swimmer to the one who is properly taught. If graduate students are not taught, they do not know how to teach, and merely hand on their own misfortunes. The seminar, field courses, and thesis afford unusually good techniques for graduate teaching if sincerely used. If a graduate learns to think, he will be interested in teaching his students to think. I was fortunate in beginning my graduate study under the teaching of Rollin D. Salisbury who was a bear for accurate facts and an understanding of these facts and the ability of the student to state his understanding of these facts clearly. Geographers who do not like to teach should not be employed to teach geographers. To employ such people is cruel punishment to the students.

Conclusion

To borrow a business phrase, the teacher should not behave as if he were in a seller's market, where he, the salesman-teacher, in essence says to his customers, the students, here I am, here is what I have, take it or leave it. On the contrary, the teacher should behave as if he were in a buyer's market, where he, the salesman-teacher, studies the needs, characteristics, and requirements of his customers, the students, and where he uses the best techniques and devices to put across what he has. After all, the object of teaching geography is to aid in the education of an individual whether he is to be a general citizen or a geographic specialist. The procedure is just good common sense. To teach effectively requires time and patience.

A GLOBE-MAP ACTIVITIES PROGRAM*

JOSEPH E. WILLIAMS
University of Washington

The globe is a precise model of the earth; its diameter and area bear a direct ratio to the diameter and area of the earth. Viewing the globe for the purposes of geography presents special problems in teaching. There is always a visible and an invisible hemisphere, and a slight rotation changes the picture so rapidly that a pupil can hardly remember what he saw last. Also, when forty pupils view a globe, each one sees a different picture. Certain maps can be used that will establish for the pupil a true and realistic concept of the earth; a picture of the globe which either one or forty pupils can study, analyze, and reproduce for themselves. Furthermore, these actual activities of making the globe and then making maps of the globe will establish lasting ideas about global relationships. To accomplish this objective we must first analyze the globe and decide which are the most important hemispheres in terms of land area, productivity, and population. Then we should examine the maps now in use to see how the problems are being handled and attempt to select the projections which best provide the most realistic, truthful, and teachable approach to world geography.

The problem of the cartographer is to attempt to portray something of each of the following five global properties on the map: area, distance, shape, direction, and relative position. No single design map of the whole world or a hemisphere has as yet been devised which can portray all of these properties without the distortion of some. In other words, all world maps and to a lesser degree all hemisphere maps, are a compromise. The purpose for which the map is made governs the cartographer's choice of properties which he will emphasize. Since our purpose is teaching true global relationships thru the activities method, we must first have a projection which the teacher can quickly grasp and convey to her pupils. We can best solve this problem by examining how some major single design and two design maps handle the visible and invisible hemispheres.

* Presented at the Cleveland Meeting of the National Council of Geography Teachers, November, 1949.

SINGLE DESIGN WORLD MAPS

We shall consider the Mercator, Sinusoidal, Homolographic, Homolosine, and North Polar Azimuthal Projections.

MERCATOR PROJECTION

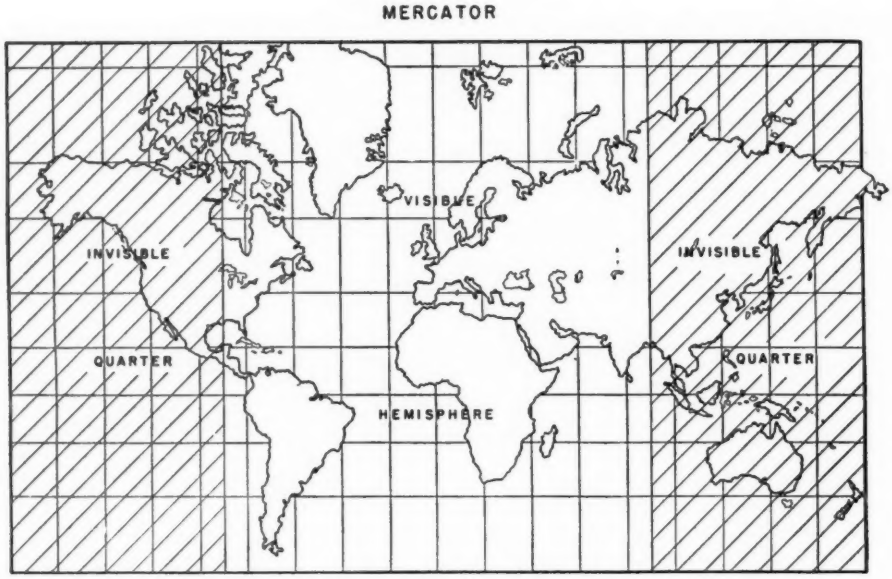

FIG. 1

Construction

Gnomonic Cylindrical with modifications to compensate for distorted high latitude areas.

Qualities

1. True direction.
2. A navigational chart.
3. Visible hemisphere and invisible quarters are rectangles.
4. Very difficult for the pupil to make the transition from the globe to the map because of the lack of similarity.

Construction

A vertical central meridian true to scale.

The parallels and Equator equally spaced on the Central Meridian and drawn to their true length.

SINUSOIDAL PROJECTION

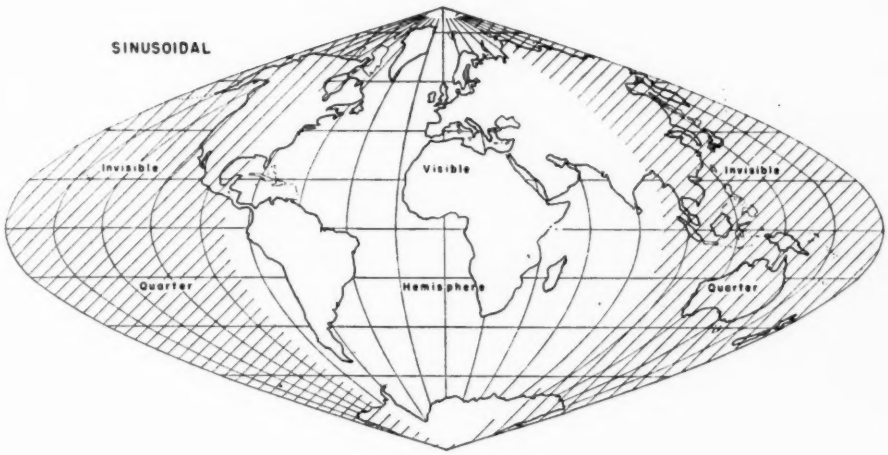

FIG. 2

Qualities

Equal area, true E-W distance. Improved resemblance to a globe.

HOMOLOGRAPHIC PROJECTION

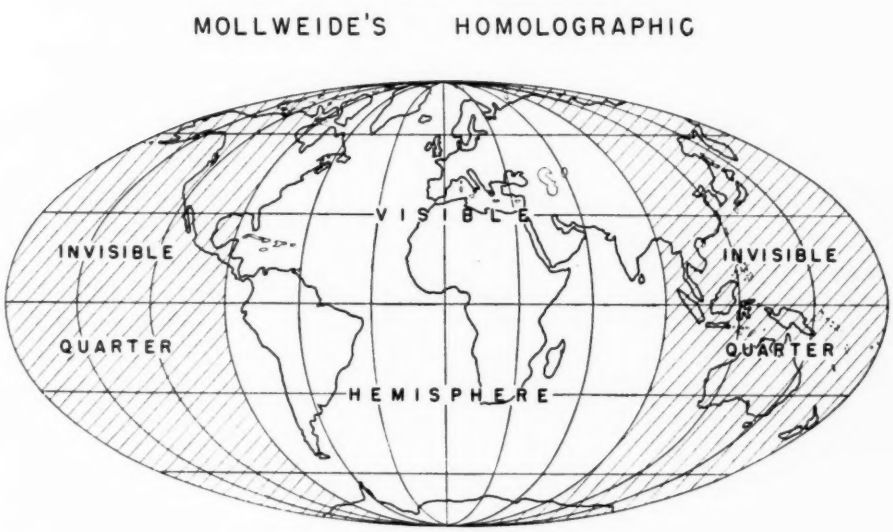

FIG. 3

Construction

The complete circle is made to equal the visible hemisphere. Parallels and meridians are drawn so that the area enclosed by them bears a direct ratio to the same area on the earth. The meridians are ellipses cutting the parallels at equal distance.

Qualities

It is equal area. E-W distances are nearly true to the earth. It is difficult to construct and could not be used in an efficient map activities program in geography.

Goode's Homolosine Projection

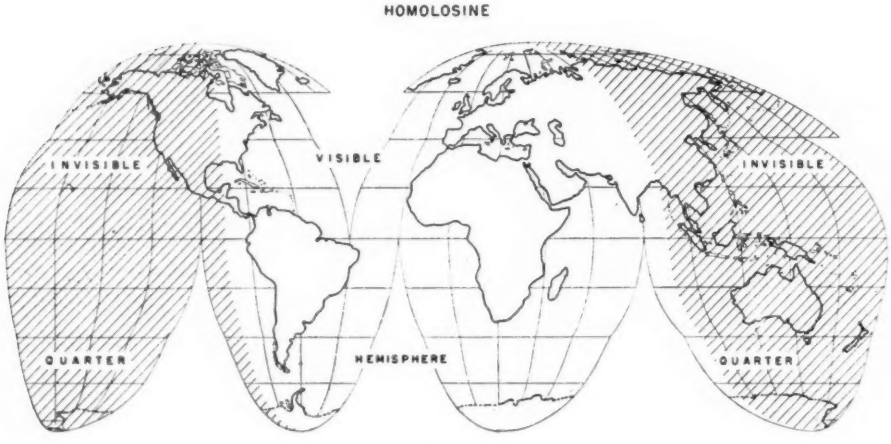

Fig. 4

Construction

A combination of the preceding Sinusoidal (0°-40° Lat.) and Homolographic (40°-90° Lat.) projections; interrupted for true shape.

Qualities

Equal area, true shape for the lands, nearly true E-W distance. Ocean distances are difficult to comprehend. In terms of the entire world, land, and water, it bears little resemblance to the earth. This together with the difficulties of construction rules it out for the beginning activities in geography. This projection is excellent for advanced work in the comparative geography of the continents.

NORTH POLAR (AZIMUTHAL EQUIDISTANT)

POLAR AZIMUTHAL EQUIDISTANT

FIG. 5

Construction

The visible hemisphere is the Northern Hemisphere and the starting point is the North Pole. Parallels are concentric circles equally spaced around the North Pole. Meridians are straight lines at their true Azimuth or angle around the North Pole. They can be laid out with a protractor.

Qualities

The all important Northern Hemisphere is kept intact. If the projection is stopped at 60° South Latitude, then all of the habitable

world is on a single map. The relative position of North America, Europe, and Asia is well preserved. The North Pole is a point and the Equator a circle. When this map is held beside the globe with the viewpoint centered on the North Pole, the map and globe possess similarities. It is simple to construct and may fit into a world map activities program easily except for one difficult feature—a badly distorted Southern Hemisphere.

Hemisphere or Two Design World Maps

From the preceding discussion it is evident that the single design world maps are very difficult to use in an activities program to teach accurate global geography; either the projections are too difficult to construct or the resulting map bears little resemblance to the globe. If we could concentrate on first one hemisphere, then its opposite, at least the problem of the invisible hemisphere would be solved.

The next logical step seems to be to analyze the globe in terms of the most important hemispheres and their opposites or antipotal hemispheres. This results in three pairs of hemispheres that are of considerable value in understanding the relationships between the oceans and continents:

1. Northern and Southern Hemispheres.
2. Eastern and Western Hemispheres.
3. Land and Water Hemispheres.

Any two of these hemispheres are identical in shape and area. Therefore, the maps of each hemisphere should have identical shapes and bear a direct resemblance to the globe so that a pupil can see that the map is depicting the truth about the globe. Of the three pairs of hemispheres, the Northern and Southern is by far the easiest to use in the map activities program. Our next problem is to choose the best projection from those commonly used to depict these hemispheres, namely: orthographic, stereographic, azimuthal equal area, and azimuthal equidistant projections. Even tho orthographic and stereographic projections of hemispheres are frequently used in present day maps or atlases,[1] they have very little to offer in map exercises for the beginning pupil. They are more difficult to construct and the resulting shapes of the continents and oceans are not more accurate than the easily constructed azimuthal equal area and equidistant projections.

[1] Raisz, Erwin, *General Cartography*, McGraw-Hill, pp. 82-84, 1948.

HEMISPHERE POLAR AZIMUTHAL EQUAL AREA

FIG. 6

Construction

With the pole as the center the parallels are concentric circles drawn with radii equal to the chord of the meridian from the parallel to the pole. Meridians are laid out with protractor as straight lines from the pole.

Qualities

Equal area. Similar to the globe. Distances between North America and Asia fairly well preserved. Not quite as easily constructed as the Polar Equidistant Projection.

HEMISPHERE POLAR AZIMUTHAL EQUIDISTANT

FIG. 7

Construction

With the pole as point at the center draw the parallels as equally spaced concentric circles. With a protractor lay out the meridians as straight lines from the center.

Qualities

Preserves the unity of the Northern Hemisphere. Distances between North America and Eurasia nearly true to scale. Global position well preserved. Bears a similarity to the globe and is easily constructed. Excellent for a map activities program.

The best projection to use to depict the Northern and Southern

Hemispheres is the Polar Azimuthal which may be either equal area or equidistant. The equidistant projection is so easy to construct that it outweighs the equal area and the end result is so similar that the choice is overwhelmingly in favor of the equidistant. One Polar Equidistant design for the Northern Hemisphere, and another similar design beside it for the Southern Hemisphere helps the pupil to make an accurate transition from the globe to the map.

USES OF AZIMUTHAL EQUIDISTANT MAPS

We have reviewed some of the major maps or projections and have pointed out the advantages of the Two Design Polar Azimuthal maps. The next step is to decide the uses to which these maps can be put in a map-globe activities program.

One approach to world geography is to first put into the pupils' hands the necessary tools and materials to make global hemispheres and finally assemble these into a globe. Inexpensive paper hemispheres are first assembled with scotch tape so they can be studied separately and flattened by opening the gores or lunes, first at the poles, then re-assembled and opened at the Equator. This reveals to the pupil the basic approach to the two types of maps, the single design world and the two design world. When the pupil takes the gores apart and rearranges them to fit the pattern of the grid of parallels and meridians, he is given an opportunity to learn latitude, longitude, and much about the arrangement of the continents and oceans. After carefully studying the hemispheres, it is easy to assemble them into a globe.

The pupil now progresses to the problem of making a map of the globe which he has just assembled. At this time, he is given the simple instructions for constructing the Polar Azimuthal Equidistant Projection or circular grid as described above. After the grid of parallels and meridians is drawn, the pupil transfers the coast lines of the continents from the globe to the map, section by section. In this activity the pupil learns the size, shape, and relative position of the geographical features. His finished map bears a direct resemblance to the globe; if the two are held side by side he is convinced that he has mastered a new technique.

The pupil may now compare his maps with printed global maps. He finds that he has done a comparable job. He may progress to the more advanced tasks of geography by studying and working with printed outline maps because he knows how they were made and

what they represent. The data of the new maps should be approached in a systematic manner with the physical landscape first so that separate lessons proceed with these topics:

1. Continents and Islands
2. Oceans, Seas, Gulfs and Bays
3. The Atmosphere
4. Rivers, Lakes, and Inland Seas
5. Land Features
6. Climate
7. Vegetation

It is possible to make transparent hemispheres, a little larger than the paper globe, which represent the atmosphere and the planetary winds. These can be assembled on the globe to show the air and its currents around the earth.

After the physical features are studied the pupil can begin the cultural features with a systematic approach thru the following topics:

1. Population
2. Countries
3. Farming and Stock Raising
4. Power to Run Machines
5. Iron and Steel Production
6. Industrial Cities and Factory Areas
7. Ocean Trade and Ports
8. Global Airways

In this way world resources may be compared to the distribution of population, and the spread of the various national areas encompassing these resources. Now, the pupil should have sufficient data with which to develop power concepts with regard to the whole earth and its dependent population. The tasks of world geography have been broken down so that any pupil may grasp them and finally fit them into the complex puzzle of world relationships. It is thru the correct interpretation of earth facts and the analyzing of their place in the needs, wants, and desires of peoples, that geography becomes a useful tool in the educational program.

THE SAMPLE STUDY—A METHOD AND ITS LIMITATIONS

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Geographers have long been aware that their teaching has a long-term contribution that is much more important to the future citizen than the acquisition of facts about the world and its occupants. Geography forms ". . . part of the mental equipment necessary for the intelligent reading of the newspaper, for grasping the significance of current affairs, for some understanding of the complex world in which we live."*

Our problem has not only been the choice of material from an impossibly wide (a world-wide) field, but also how to make our teaching of those areas of the "homeland" that are unknown to our pupils, realistic, interesting and profitable.

We have in the past tended to approach this problem of studying the whole world by a selection of those parts which seemed more important to us, and by dangerous generalization about large sections of the earth's surface. Nevertheless it is a problem that must be faced and solved, because it is in the sphere of global thinking and sympathetic understanding that geography makes one of its strongest contributions.

An alternative method which is being used by a number of people, is that of the "Sample Study." In order to assess the value of this technique we need to know what a Sample Study is, the advantages of such a method, the various parts of the geographic field to which this method can be applied, and lastly, its weaknesses. The real testing of the method—its trial with parallel groups, one taught by this, and another by formal methods, presents another problem, for its success is very closely related to the particular knowledge and personality of the teacher, and his ability to "put across" and "follow up."

Such a study, whether it is called a sample, a "type" study, a "patch" or any other name, will usually have five sections:

1. The simple response to the physical environment, in the way of life of a village or other unit of settlement; considerable detail on lay-out of settlement, plan of home, food, clothes, furniture, customs and general mode of living, seasonal work, etc. as they relate to vegetation, climate and position. (Maps and pictures essential.)

* H.M.S.O. Report.

2. Generalization from this where it is possible; the world distribution of related types; how they do in fact differ from one another because of differences in position and the extent to which they have been developed, and why (map).

3. An important section on the modern utilization of such regions, including the kind of current material every geography teacher uses to bring textbooks up to date, and to introduce a sense of "immediacy" or "in-the-news-ness" into the lesson.

4. References—sources of information and material that will enrich the knowledge of the teacher and give reality to the material when used in school.

5. Pictures.

The remainder of this paper therefore includes the following sections:

1. An example of a "Sample Study" and its application, presented as briefly as possible.

2. The advantages and disadvantages of the method.

3. The problem of source material.

THE LAPP COMMUNITIES OF THE SCANDINAVIAN SUB-ARCTIC

Part of northern Scandinavia is inhabited by groups of Lapps who formerly gained a living mainly from herding reindeer and from fishing. The need to provide enough pasture in this area of meagre vegetation has resulted in transhumance, the seasonal movement into the Norwegian mountain pastures in summer as the snow clears, and a return to the lowland settlement as the ground takes on the snow cover of winter, in rhythm with the seasonal changes thruout the year. Hence the summer tent of poles, formerly covered with skin and now with coarse cloth (like sacking) is easily moved, while the "permanent" or winter home (Kåtån) is made from turf and stone—a sod hut. This formerly had an earthen floor covered with brushwood, a window, stove and various items of furniture, and the softest reindeer pelts as bedding. Food, clothing, fuel and most of the gear would be produced by the locality, from the reindeer herds themselves, from rivers and lakes, and from the stunted birch vegetation. Problems were the winter dark or twilight period and that of feeding the reindeer unless the snow cover is so thin that they can nose out the moss for themselves.

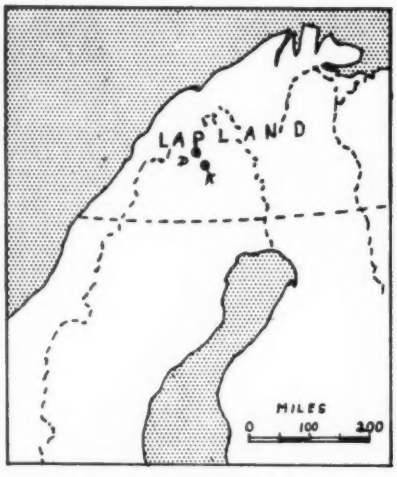

FIG. 1. Locational sketch map

These characteristics can be well illustrated from one or two settlements. At Djupviken, situated on the shore of a lake (Vikharkow), where there are five families, sod huts and summer "nomadic" tents are still used, but the kåtån is wood panelled inside, the floor is raised and properly joisted and is insulated underneath with dried grass and small birch twigs. Walls, floor and ceiling are polished or stained a rich brown. Contents include an iron stove (with chimney), wooden tables, chairs, "dresser," beds or couches which could push under each other, Tilly lamp (primus type) for light, Singer sewing machine, iron and aluminum pots and pans, china and cutlery, rugs, curtains, clothes pegs on a line, pictures and so on. It was a small but normal and comfortable home, with walls so thick that it should be very warm. Fishing nets were hanging out on posts to dry, and a small boat with an out-board engine was beached below on the shore. Illustrative of the contrasts due to a continuance of the old and the infiltration of new ways, a bear trap hung on a fence, yet the son of one rather bent old Lapp was working with a film unit in Stockholm. Two of the families lived in modern sawn timber homes. The settlement also grew a small quantity of potatoes and carrots and kept goats and young calves.

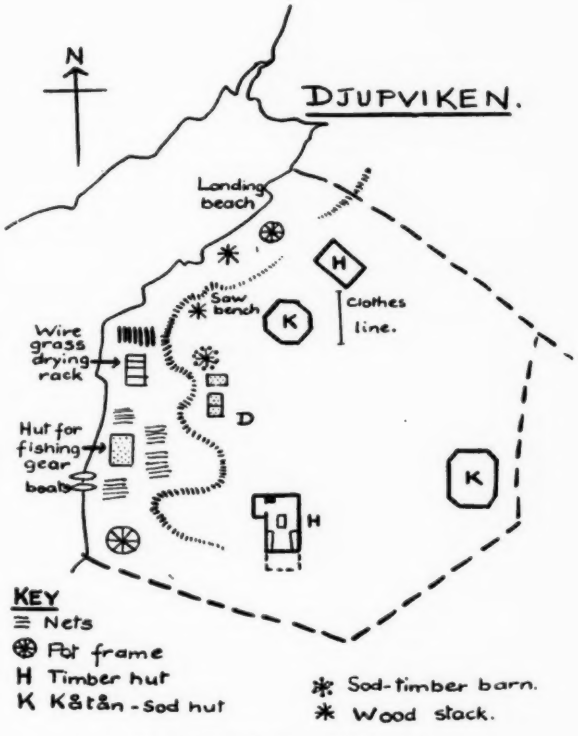

FIG. 2. Sketch map of Djupviken

Another group of settlements illustrated still greater change, tho again the Lapp costume was worn, probably because it was functional, and there were kåtån and tents on the site. Here in this

FIG. 3. Djupviken. The new Kåtån (sod house)

very isolated place, electricity was available by wind driven dynamo. There was telephone connection to the nearest "village" about twelve miles away, and the family, from one very comfortably furnished wooden house (with bedrooms upstairs), went weekly along the lake to fetch rations from a store, a journey of eight hours in all. Their cash income was quite good, because there was a return of about 25 per cent per annum on their herd, which was valued at about £1,500 at that time. A group of settlements nearby shared a school attended by seven children, from seven to eleven years of age, after which they went to the state boarding school in Kiruna. Everyone spoke Lapp, but the children learned Swedish when they went to school, and there education was, after that, bi-lingual.

These changes in a traditional way of life were, briefly, due to two main things; the existence of a great iron ore body at Kiruna, 40 miles to the east and the development of the technical skill which could mine and transport it; and the climatic situation in the north Baltic where the sea is frozen for five months, while to the

west, the port of Narvik remains open all the year round. It was this closing of the Baltic route that stimulated the construction of the route to Narvik, thru a region that is now accessible even tho it has no roads. Engineering skill and the ability to provide abundant cheap hydro-electric power make it possible for this route to stay open all the year. Nevertheless it is still necessary to overcome the disabilities of this sub-arctic region. The winter twilight is lit by flood-lighting in iron ore quarries and streets, milk and cream and other food (including bananas) are brought in by rail, so that Kiruna, tho only 15,000 in population, is a spacious, clean, almost luxurious small town nearly 100 miles within the Arctic.

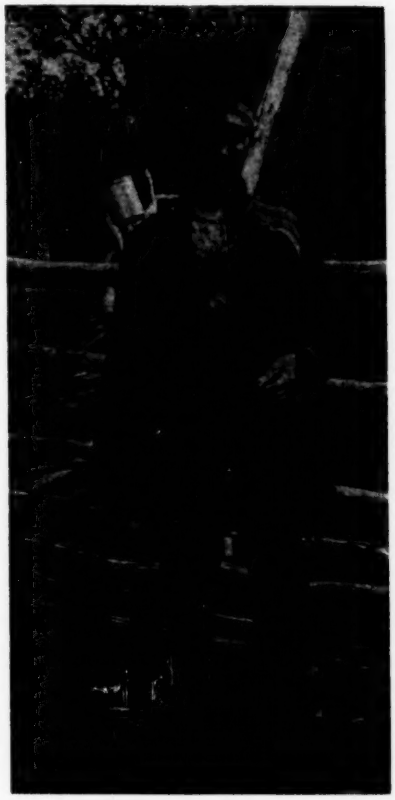

FIG. 4. An old Lapp at Djupviken

The use of this core study would be in the development of an understanding of the physical setting in the Arctic and sub-Arctic by an indirect approach; these would include the increasing length of winter night and summer day, to the point where the sun makes the complete circuit of the sky, always in view but in the south at noon, the north at midnight and so on (northern hemisphere); the cumulative effect of the long hours of summer daylight on the ripening of crops; the character of the vegetation; the more extreme conditions of the "Eskimo" Arctic, where, however, the permanent dwelling may still be a sod hut.

The modern development of such areas as the Soviet Arctic or Alaska, will illustrate the essentially dynamic quality of geography and how it is so often man who gives the earth its characteristic expression. For it is man who has become the main factor determining environmental change. Again there will be the flood lighting of the winter dark; the problems of permanently frozen sub-soil and of food and home; it will indicate how man has used the high

Fig. 5. Laimoviken. Old and new—lake boats and homesteads. Notice the wind driven dynamo between the timber houses.

winds of the Arctic to give light and grow crops, and the fundamentally important factor of strategy where the shortest route between so many northern hemisphere towns is by trans-polar flight.

For what kind of work in geography might this method be used? Essentially for studies where there is the need to extend to a larger region, and particularly for the four following groups:

1. Major Natural Regions (Natural Geographic Regions).

The method here would be to take the twelve most important regions, such as Equatorial, Monsoon, Desert, Mediterranean, etc. and for each to develop a core study in simple response, the modern development of the region, the general aspects of the regional type in other parts of the world and dissimilarities where they exist.

2. Commodity Studies.

The study of the farm plantation of a very important area of production; all the facets of growing and marketing the crop; the world distribution and necessary qualification of what has gone before. Possible for most economic products.

3. Samples of the Way of Life in Fairly Small Regions.

This method could be used for the contrasted study of an area with numerous sub-regions eg., the British Isles.

For example, the crofting township and how far it can illustrate the quality of life

in Highland Scotland; other farming and regional studies; the functions of towns, such as fishing ports, coal mining towns, market towns, a characteristic village, multifunctional towns and great ports.

4. For the More Effective Study of a Country.

If time is very limited it is sometimes better to introduce the atmosphere of a country thru this method rather than to take one or two lessons of formal approach, e.g., for Switzerland, Holland, Denmark, Egypt, even India.

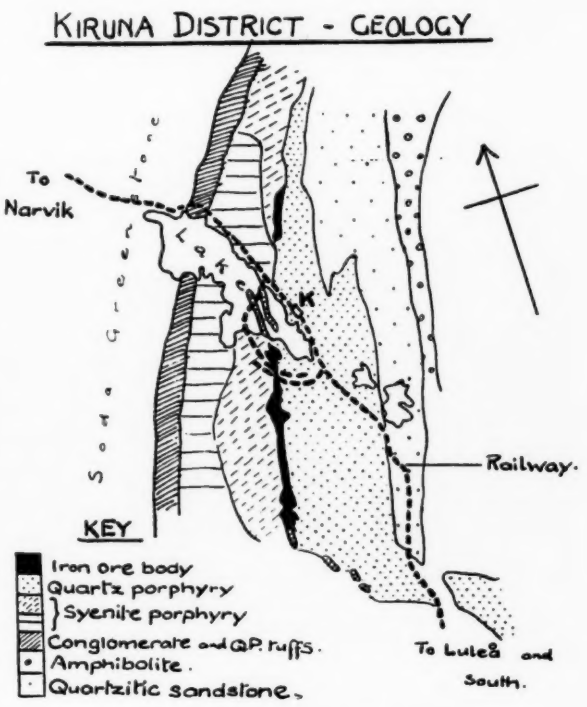

FIG. 6. Kiruna mining district

There are so many possible ways of teaching any given topic that it must be made quite plain that this is only *a* method, and that it should by no means become *the* method. It does however appear to have certain advantages provided that it is used with discrimination, and these may be summarized as follows:

1. It is often the small everyday things that appeal to children and are remembered by them.

2. It is often possible to develop an understanding of relationships by natural association instead of by a more academic approach so that items of relief, climate, vegetation, and so on, still take their right place but in a more realistic manner.

3. It has an ability to illustrate change, the old continuing alongside the new—a very useful corrective for textbooks so soon out of date.

4. In this connection it can be used in conjunction *with* the textbook, for the textbook will rarely contain the full detail of a Sample Study, and each will be a useful supplement to the other.

5. It can be adapted to suit a variety of ages by a judicious selection of material. A high standard of factual knowledge seems to be acceptable to children in this form, for it hangs together in an "almost living experience." On the other hand it can give some understanding of what is, without necessarily going into explanations that may rightly come at another stage when such work is taken with junior children.

Items that cannot be illustrated at one point may well be explained at another, e.g., the permanently frozen sub-soil is illustrated by subsiding houses under modern development of the Soviet Arctic.

FIG. 7. Kiruna. The view of Kiruna from the southern "iron ridge" looking across the lake northwards.

6. It can give a vivid presentation of urgent problems, and sow the seed of understanding; it can illustrate the evils of robbing the earth and the need for conservation.

The disadvantages may be summarized as follows:

1. Unless taken in adequate detail it can be elementary and superficial.

2. If this method is used all the time the children will be as bored as by any other method that is almost constantly in use.

3. Generalization is not always possible or desirable. Altho there is some similarity between regions one must not ignore the fundamental character that may be attributed to each, whatever its cause. Sometimes it is more useful to state contrasts and to say "Altho this is true for this area, in . . . the situation is rather different." Vogt says in *The Road to Survival* (p. 55) "All phenomena from individual cornfields to individual countries are *unique* and (as processes) *constantly changing*."

4. The method is of little use unless it is supported by adequate visual material in the form of pictures and diagrams, for verbal imagery is dependent on the personality of the teacher and can be more certain of being effective if accompanied by these aids.

5. Often the required material is inaccessible or is quite unknown to the teacher.

It is this that brings me to the final problem, for tho many ex-service men have travelled widely, most teachers have little experience of other parts of the world. If they have, they know the difference between teaching the known area and the unknown. We are dependent on second hand material, and there is as yet no uniform source of such information. Sometimes the material comes from the last likely sources, such as "At Home in India" which came from a popular women's magazine. Geographical magazines,

picture post cards, travel stories of all kinds, monographs of anthropological institutes, and so on, provide much varied material.

Perhaps it is only possible to make this information available to teachers if geographers who have such knowledge will cooperate, and write it up for educational journals. If the method proves successful and a need for such studies is expressed, there is far greater likelihood that some of our writers of educational textbooks will produce something, either out of their own experience or by gathering into one volume a series of such studies.

A GEOGRAPHY ASSIGNMENT AND SOME OF THE RESULTS

CLARE SYMONDS
Quincy, Illinois
Senior High School

Too few high school pupils have any skill in finding or in selecting relevant information on assigned topics. Nor do they possess the skill to organize such information. They need a great deal of practice and helpful guidance and plenty of reference material with which to work. It may be that even more important are topics of interest to that age group.

Geography is an ideal course in which to teach such skills because of the wealth of information and the wide diversity of topics. Travel—seeing other places, meeting other people, and perhaps most fascinating, the various methods of travel—even tho vicarious—will usually hold the interest of this age group for long periods of time.

The following is one of several assignments given during the year in which specific information is called for but a wide latitude allowed for individual differences.

THE ASSIGNMENT

Prepare a report on the following topic:

A three-week trip from Quincy with visits (at least one day) in the capitals of ten Latin American countries. (All countries south of the United States are so-called.—*World Geography* by Bradley—page 404.)

Suggestions:

1. Use note cards in recording facts to be incorporated into your report.
2. Make a complete list of references in which you find usable information.

3. Keep in mind that the report is to be read to the class and then handed in. (The class will be especially interested in hearing some details of your trip as well descriptions of the things you see and of your activities.)

SUGGESTED SOURCES OF INFORMATION

Books

1. *Information Please Almanac 1947*[1]
2. *The Story of Nations* by Rogers, Adams, and Brown (1940)
3. *Our Latin American Neighbors* by Brown, Bailey, and Haring (1944)

Magazine Articles

1. *Reader's Digest,* January 1949 "Now You Can Take That Trip Abroad" by Julian Trippe
2. *World Week* (see files)

Booklets from Pan American Union

1. The "Capital Series"
2. The "Travel Series"
   (Mexico, Brazil, Colombia, El Salvador, Honduras, Nicaragua, Venezuela.)
3. The Pan American Highway
4. The Americas—A Panoramic View
5. Seeing the Latin Republics of North America.
6. Requirements for the entry of United States citizens into the Latin American Republics. (Rev. 1948)

After each pupil had read the assignment, it was discussed briefly and methods of procedure and a suggestive time-table of activities outlined. (These were written on the blackboard as the suggestions were made and revised. Later mimeographed copies were made for each pupil.)

1. Read carefully and discuss among classmates the general information on page 628 in "Suggested reference book No. 1." Also read the magazine article given specifically in the reference list. (Some pupils offered to report on this article in each class.) (2 days)
2. Class discussion of the above general information. (1 day)
3. Study the air and other globes and the wall maps to determine a possible itinerary.
4. Read travel information (especially entry requirements) for the countries on the selected itinerary. (3 days for 3, 4)
5. Class discussion of problems—using wall maps to point up discussion. (1 day)
6. Make a list of cities to be visited and for each write the entry requirements.
7. Write a report[2] of the preliminary arrangements for the trip, using information in No. 1 and No. 6. (2 days for 6 and 7)
8. On a desk map locate the cities to be visited and draw route of travel with necessary stopovers.
9. Figure time required and route according to the means of travel selected. (2 days for 8 and 9)

[1] Thirty copies in classroom library.

[2] At the suggestion of many pupils an outline for this was worked out in class and placed on the blackboard as a guide for those who needed such help.

10. Write, for each city visited, a description of things seen and done during the one day (or more) of your visit. (Use your own words and remember to use good judgment in selecting things to do and to see in the time available in each city.)[3] (1 week)

The project occupied about four weeks of class time with a few minutes of general discussion almost every day and a great deal of consultation with the teacher and among themselves during the whole four weeks. Many of the pupils did a great deal of work outside of class time.

A few days after the project was begun, the pupils were thrilled to find an article and a map in a Chicago Sunday paper concerning a similar trip to Latin America. Many of them planned their trips from this article.

Another current happening which fitted into the project was a news article and a radio report of a local lawyer's airplane trip to Mexico and a couple of Central American countries.

The report chosen to represent the results of this project is one of those voted "most interesting" by the classes which heard them read. The author of this one was a senior[4] but some of the sophomores' reports were equally well received by their classmates.

MY TRIP TO LATIN AMERICA

JIM SNIDER
Quincy, Illinois

Most of the details of my three-week vacation trip to Latin America were already worked out when I applied at the Federal District Court in the Post Office Building for a passport to visit Honduras, Costa Rica, El Salvador, Nicaragua, Colombia, and Venezuela. I supplied the necessary two photographs and paid the $10.00 fee.

Since it was necessary to make a personal application for visas and tourist cards, I went to Chicago where each country on my tour maintains a consulate. There I applied for visas for Costa Rica, El Salvador, Honduras, Nicaragua, Colombia, and Venezuela; and for tourist cards to visit Cuba, Panama, Guatemala, and Mexico. Upon my return home I cabled the State Department of Colombia for permission to visit in that country and received a favorable reply. I was certainly glad I had started my preparation early, since it took nearly six weeks to get my visas.

It was necessary to secure a police certificate as tourists in Colombia, Costa Rica, Nicaragua, and Venezuela are required to show such a certificate.

[3] This note was added to the suggestions worked out by pupils as a reminder that they must be *thoughtful* in planning their visits.

[4] The classes are made up of all three senior high grades with a preponderance of sophomores because this course in World Geography is one of the elective courses which may be chosen to make up the social studies required for graduation. Geography usually outranks World History in the number of classes but occasionally the number of students who elect these courses is approximately the same in each.

The Mayor of our city provided me with a letter of recommendation required by Colombia.

My doctor gave me a health certificate and a certificate showing that I had been successfully vaccinated recently—both of which were required by some of the countries I visited.

One of the important preliminary arrangements was having a photostatic copy made of my birth certificate because it is one of the best proofs of United States citizenship.

I had my expense money changed into American Express Traveler's Checks for security reasons. Naturally, I found it necessary to exchange some of these for the local currency in most of the countries I visited. United States Currency was freely accepted in Cuba and El Salvador.

The Pan American Airways helped me to plan my trip and secured my tickets and hotel reservations in Havana, Mexico City, Caracas, Guatemala City, Bogotá, Panama City, San Jose, San Salvador, Managua, and Tegucigalpa.

Early on the morning of March 1, I left for Miami in my convertible. I drove to St. Louis, and from there, south to Memphis, Tennessee, arriving there about nine that night. I stayed in Memphis that night and got an early start the next morning. I reached Birmingham at noon, and after lunch I started the 400 mile drive to Jacksonville, Florida. I arrived at one o'clock on the morning of March 3, slept till noon, and drove 350 miles along the coast to Miami. By eight that night I was at the home of a friend in Miami, talking about my trip.

I had brought only the simplest of clothes: overall pants, "T" shirts, heavy shoes, a rain outfit for the tropical downpours I expected, one good medium weight suit, and a hat—an item necessary to prevent sunstroke. All in all, I had just the bare essentials, and my baggage was well within the P.A.A. limit.

My friend allowed me to store my car in his garage during most of my trip. After a good night's rest, I boarded a P.A.A. plane for Mexico City at noon on March 5.

Five and a half hours later I was in Mexico's capital. I had my credentials checked, (I always kept my credentials ready so they might be checked at any time) and went to the Carlton Hotel. At the hotel I had my first taste of real Mexican food. The next morning I arose early and proceeded to take a look at the town. I found Mexico City to be a modern city with a million and a half people. It is very beautiful, having many parks which are filled with flowers. That afternoon, I rode down the Cinco de Maya, the principal street in the business district. That evening, in one of Mexico City's many modern movie houses, I saw one of the latest Hollywood releases—in Spanish. The next day, I went on a sight-seeing trip to the Pyramid of the Sun, twenty-five miles from Mexico City. The various ruins occupy eleven acres, and the Pyramid itself is 210 feet high. The ancient buildings, most of which were temples, are over 3,000 years old. On the way back to the Capital, we stopped at a small village where a local festival was being held. I purchased several pieces of jewelry—hand fashioned from turquoise and silver. The festival itself was loads of fun, and consisted of dancing, singing, fireworks, and a bullfight—the first I had ever seen.

That night in Mexico City, I talked with an American Official about my visit to Guatemala, and he served as a guide in showing me other interesting sights of Mexico City, among which was the Cathedral, built in 1667.

On Tuesday, March 8, I flew to Guatemala City, capital of Guatemala. The trip required two and one-half hours, and the air view of the city was very beautiful. The city is surrounded by mountains, many of which were once volcanoes. I learned that there are still two active volcanoes in the country. I remained in the city for two days and explored much of it. All the streets in Guatemala City are laid out north-south

and east-west. The new parts of the town have modern wide streets, but the older parts have very narrow streets. The "La Reforma" is a very wide street, and is three miles long. The older buildings are seldom over two stories high because of earthquakes, but newer ones are taller, since they are built stronger.

Among the sights which I saw during my visit were the Palace of the Archbishop, the Cathedral, some beautiful government buildings, two museums, and several fine private clubs. I visited the Central Market, but bought nothing because the gift shops in the lobby of my hotel, the Palace, took care of my gift needs. My last day in the country I drove out to the capital of Ancient Central America, Antiqua, where 15,000 people still live in the ruins of this ancient and interesting city.

One hour's flying time the next day, took me to San Salvador, the capital of El Salvador. After my credentials were checked at the airport, I went to my hotel, the Astoria. The city lies in a pleasant valley, surrounded by hills. The Plaza Bolivar in the heart of the city is a meeting place for everyone. There are band concerts in this plaza, on various occasions. I visited the National Palace, and the very beautiful cathedral. Most of the houses are of Spanish style. Many buses and cars may be seen on the modern streets at any hour, day or night.

The next day, I toured the town, and saw many beautiful private residences, the military school, and the market. Strange as it may seem, Sunday is the biggest market day. The last afternoon in San Salvador was spent in a visit, to the beautiful country club, to which I had been invited by an American member.

March 15, I reached Tegucigalpa, capital of Honduras, the trip requiring an hour. I went to the Hotel Ritz, and sent several cards and letters home. The next day I toured the city, visiting the mint, post office, the modern airport, and the statue of the national hero, Morazan. On the next day, I toured Honduras' industries, and saw how the country's bananas, coffee, mahogany, and minerals are made ready for use.

I got a good night's rest, and flew to Managua, forty-five minutes by P.A.A. After my papers had been checked, I went to the hotel, Lido Palace. During my two days in the city, I visited a liquor factory, a cosmetic house, the Presidential Palace, and the exclusive Managua Social Club. I found no specialty store in Managua, since Nicaragua's wholesale trade has never been developed. I saw a motion picture at the "Teatro Gonzale"—the finest movie house in Central America. An interesting highlight to my visit here was seeing the city's ultramodern fire department. The reason for this interest in the fire departments lies in the fact that Managua used to have so many fires due to earthquakes that the city is very fire-conscious. This department is the pride and joy of the city.

March 18, I left Managua, and an hour later I was in San Jose, Costa Rica's beautiful capital. The residences are especially nice, I learned, when, after leaving my baggage at the Rex Hotel, I began to visit the city. The streets are well-paved, and are laid out in checkerboard order. Most of the buildings are low, under four stories. While in the city, I visited a bakery, the National Museum, and the La Sabana recreation park which is west of the city.

Sunday, March 20, I landed at Panama City after a flight of one hour and forty-five minutes. I stayed at the government-owned Tivoli Hotel, one mile from the city proper. During my visit, I saw horse and dog racing, a coffee plantation, the coconut industry, and the pearl divers at work in the gulf of Panama. The city itself was good enough, but I had little time for it, since I was soon on my way to Bogotá, Colombia, two air-hours away.

I arrived there on Monday, March 21, and had my credentials checked. Since time was beginning to be precious, I stayed there only twenty-four hours, my headquarters being the Hotel Aster. However, I did make my stay worth while, as I saw

most of the sights, including the Plaza Bolivar with its statue of Bolivar, the white granite capitol building, the library, Presidential Palace, and the schools. The city is in a healthful region, 8,564 feet above sea level, and surrounded by mountains.

Tuesday the 22nd, I flew to Caracas, Venezuela in two hours forty-five minutes. (All the flights so far had provided an interesting method of studying Central America's geography—from the plane window.) I registered at the Melrose hotel, and had lunch. The food on my plate was good on the whole, most of it being American style. That afternoon, I visited a chicle plant, and toured the city, finding it to be one of well-planned streets, and well-kept parks. The city is a contrast of old and new, both in appearance, and customs. I visited Maracaibo, the capital of the country's oil industry, and then boarded a plane to Miami, six hours away.

I arrived at my friend's house that evening, and rested there that night. The next day, bright and early, we put my light blue convertible on the Key West Ferry, and went to Cuba. We stayed at the La Union Hotel, but for the most part we were on the go, since in two days' time we went to races, cockfights, drove forty miles across the island's wonderful road to visit Bataband, and toured Havana, seeing the many mansions and private clubs, the markets and beautiful Malecon Drive.

We visited Morro Castle, the fortress which guards Havana harbor, and were very much impressed by it just as we were impressed with all of Havana. The Prado is the main street of Havana, and is a beautiful street of fine buildings and shaded parkways. The capitol building looks very much like ours at Washington, except for its gold dome. This modern part of Cuba's capital city and chief shipping port is like an American city, but we also visited the old section nearby where houses built flush with the sidewalks line the narrow streets. The grilled windows typify the old Spanish influence.

Once back in Miami, I rested up for the last leg of my trip, the drive back to Quincy. I had run a week over my allotted time, but it was well worth the time and money. I was back in Quincy March 28, with my car full of assorted souvenirs. Already I am looking forward to another such trip, but that one is to be on the Pan-American Highway when and if it is finished.

THE RELATION OF GEOGRAPHY TO OTHER SOCIAL STUDIES AND PHYSICAL SCIENCES IN THE CLEVELAND SCHOOLS*

CLYDE F. VARNER
Cleveland, Ohio

Geography in the Cleveland Public Schools is neither an orphan nor a spoiled child. It is just a member of the family. It does not always get as large a piece of the curriculum pie as it would like, and that fact brings it into sympathetic accord with the other members of the family who suffer from a similar deprivation. The pie is quite large, but the family is large and constantly growing. Each member is certain that all the others are well nourished.

* Presented at the Cleveland meeting of the National Council of Geography Teachers, November, 1949.

Probably many Cleveland teachers regret that they did not take at least one more course in geography, but few have permitted its importance to escape them. They all know that geography should be a more pleasant study than that of history, for the Creator was responsible for geography and made man responsible for the history. The chief difference seems to be that man cannot look upon his work and call it good.

These teachers are quite aware of geography's influence upon man. They know that if the climate, rainfall, and soil of the Garden of Eden had not been conducive to orchard planting man might not have been driven out. That was the only total transmigration in history, and geography was responsible for it. We should stop blaming Eve; it was geography's fault. I know that an eminent modern geographer says that this transmigration was due solely to the absence of rainfall, but there has long been a rumor circulated to the effect that it was due to the presence of another kind of fall!

But now from the Garden of Eden to "the best location in the nation" and its schools, Cleveland. It is probably not too early to reveal that I was asked to report on "The Relation of Geography to Other Social Studies and Physical Sciences in the Cleveland Schools." I iterate that my role is that of a reporter. I am neither a specialist in geography nor a salesman for the Cleveland schools. I wish only to show my guests a few pictures from our bulky curriculum album, and I shall call your attention to but three: geography, other social studies, and physical science. In every case these pictures are copies of the originals found in the courses of study prepared by teachers in these fields. They are not sketches of what should be done, but of what is being attempted at the present.

Physical Sciences

We shall look first at the physical sciences. In Grade Six, two units have not only a relationship *to* geography, but *are* geography. "What Is The Universe Like?" stresses a study of the solar system, the development of the idea that our earth is only a part of the solar system, the solar system but a small part of the Milky Way galaxy and, that it in turn, is only one of the many galaxies in the great universe. Here also the student learns of the reasons for eclipses, and gains some acquaintance with the aids to astro-

nomical study. In the second unit, "What Is The Story of the Earth?," he learns about the natural forces of wind, water, ice, and growing plants, and also of the activities of man. He sees something of the development of life thru long eras of time, and gathers knowledge about the three classes of rocks of which the earth's crust is composed.

In Grade Eight, the pupil turns his attention to geography for nine weeks when he considers three units for three weeks each: Astronomy, Meteorology, and Conservation. The topics within these units are so familiar to you that I shall not list them.

However, as to the unit on Conservation within the elementary divisions, more should be said for, whether or not it is unusual, it certainly is unusually good. Nearly fifty elementary schools have active Park Protection Clubs. The programs of the individual clubs are devoted to a greater knowledge of the natural features and how to protect them. In 1947 the annual project was the planting of club-sponsored trees in a section of Gordon Park which was in need of reforestation. The testimony of adult citizens as to the noted improvement in many areas due to the activities of these clubs is sufficient proof of their vitality and value.

Passing to the secondary field, we find an even greater emphasis upon Conservation. While proud of this work, we in Cleveland could have more national pride if we felt that this work received equal emphasis elsewhere. In 1935 a course in Conservation was started at John Marshall High School. It was designed primarily for those boys beyond the tenth grade who would not desire to take physics or chemistry. It includes a broad program of field activities. Two plots within the wings of the school building were set aside; one as a formal garden and one as a wild-life safety zone. For more than two years, a teacher has given full time to the conservation projects in this school. Other secondary schools have done much also. At Collinwood High School, a club of boys and girls have managed a tree-planting program on a badly-eroded slope in Euclid Creek Park. In many schools the city's Conservation Week is observed annually. I can recall one year when an assembly program dealing with conservation was held daily thruout this week at John Marshall High School.

In eleventh grade physical science, units are offered on "The Solar System," "Beyond The Solar System," and "Earth Sciences, Atmosphere, and Climate."

OTHER SOCIAL STUDIES

The second page in the album shows the relation of geography to the other social studies in the Cleveland school system. I shall deal first with those in which geography receives a somewhat specialized treatment.

In the first three grades of the elementary division, pupils are taught to use maps which aid them in their study of such topics as the American Indian and his environment. In Grades four, five, and six, the emphasis is upon how people live in various areas of the world. The fourth year treats of the Congo River Basin, The Far North, The Nile Valley Today, The Nile Valley of Long Ago, Ancient Greece, Western Europe, United States, Andean Plateau, and Norway. There are supplementary units on the Amazon, China, Ancient Rome, and India, but I don't know where they find the supplementary time!

The fifth year deals with living in the New England States, Middle Atlantic States, Central States (with emphasis upon Ohio), and the Southern States. The sixth year introduces the child to life in the Western States, Possessions of the United States, Dominion of Canada, Mexico, Central America, the Caribbean Islands, and South America. While it would seem that the child is getting a full menu in geography in his fifth and sixth years, he is also supposed to relish history for one-half of his time.

The objectives in the Upper Elementary Social Studies (4, 5, 6) as they relate to geography are listed by the teachers' committee as follows:

1. To appreciate the fact that people the world over have need for clothing, shelter, work, and play.
2. To develop the realization of the increasing dependence of people upon one another for the necessities of life, and the increasing need for understanding and co-operation between individuals, groups, and nations.
3. To develop an appreciation for, interest in, and understanding of other lands and times.
4. To gain greater understanding of peoples whose culture differs from our own.
5. To develop the realization that the way people live, work, and play is due partly to the way they adjust to their environment and make use of their natural resources, and partly to their qualities and cultural heritage.
6. To develop an awareness of the nation's natural resources and a responsibility toward their conservation.
7. To develop functional skills and habits: to secure information from globes and maps relating to direction, location, latitude, altitude, rainfall, crop distribution, and population.

In Grade seven the pupil receives a real treat in his combined study of geography and history. Altho I know none of the authors of the text and am myself wholly uncorrupted and incorruptible as far as royalties are concerned, I must say that I cannot refrain from giving a "plug" to a book which makes a boy's and girl's study so delightful as does *The Old World and Its Gifts.* I only wish I might have read it before traveling in these countries. I believe all Cleveland seventh graders get a real appreciation of and a love for the world which was beyond them and which now seems so close.

Emphasis in History

In the general history courses, that of the United States in Grades eight and eleven and that of World History in the tenth year, the pupil gets more than a passing glance at geography. Rather than saying that his history courses are spiced with geography, it would be more correct to say that they are saturated with it.

I hope that Cleveland teachers of history do not differ from others in that they rely almost completely upon geography to explain many of the great events of the past. How could they explain Switzerland's development of democracy without reference to its being "walled-in" by mountains? How could they explain our success in gaining independence without reference to the three thousand miles of water which separated us from the mother country? How, except by oceans, could they explain our practically unhampered attempts to develop self-government and our disposition to remain isolationists for so long? How could we explain the exodus from New England to the New West without a knowledge of the former's soil condition? How, except by geography, could we show why slavery became the "peculiar institution" of the South and not of the North? Who of them could trace the origin and development of the Industrial Revolution in England and the United States without turning to geography? How could anyone discuss the future of present-day Germany while ignoring geographic factors? Who could point up the difficulties faced in a Good Neighbor Policy without a knowledge of the physical factors and products of Latin America? These must suffice to show that we in Cleveland do not simply lean upon geography, we embrace it!

A visit to most history classes will show the remarkable extent

to which globes and maps are used by both teachers and pupils. The global-projection map is familiar to most of our pupils, and not many Cleveland boys and girls would think, as do so many adults in the United States, that only our coastal cities are vulnerable to an atomic attack. Many of our teachers, particularly those who are active in the Council on World Affairs, could discuss the system of geopolitics with those somewhat above the layman status in that field. They have heard the late Professor Spykmann of Yale and Father Edmund Walsh of Georgetown give their scholarly lectures, and they are not unfamiliar with the terms "World-Island," "The Heartland," and "The Coastlands" as they have been used by Sir Halford Mackinder and Karl Haushofer.

Economic Geography

In six Cleveland high schools, a course in tenth grade Economic Geography is offered. In one school, it is required of technical majors and in one it is required of Industrial Arts and Commercial majors. In the spring of 1949, 1221 boys and girls took this course. This compares with 3533 in World History in the same grade; neither course being required in most schools. 77.6 per cent of the tenth graders were enrolled in social studies' classes, 18.8 per cent in Economic Geography and 54.5 per cent in World History.

Those who do not elect either of these courses in the tenth grade will elect modern problems, or sociology and economics in their twelfth year. Here again Geography serves to explain much as to industrial life, community life, and even the religious life of peoples. It helps students to understand why in some areas in some ages old people have been killed off because of the shortage of food. It serves to explain why in some area where food is perpetually scarce many female infants have been destroyed, and that the females who reach maturity may have more than one husband. This geographic fact interests at least one-half of any class and may even quicken a study of transportation facilities.

Geography and Radio

Over WBOE, the schools' own radio station, the pupils have still another contact with geography. Sometimes these broadcasts are geography lessons, closely correlated with the course of study. Schools have sets of slides which are used in connection with radio lessons. Each Monday, the current news' program under the head-

ing "The News: Places and People" is made available to junior high schools. Many topics give much emphasis to geographic factors and some are almost exclusively of that nature. A sampling includes: "Crisis In China," "Indonesia," "Wanted: New Sources of Iron Ore," and "Revising Our Impression of Latin America." This program is broadcast ten times on Monday. The senior high program is broadcast on each Friday and it, too, gives emphasis to geographic factors. Some recent topics have been "A Cleveland Teacher Reports on Germany," "Exploring South America," "World Trade," and "Troubles of the United Kingdom."

Teachers' Awareness

Yes, the social studies' teachers of Cleveland have an awareness of geography. I wish that my teachers had been equal to them. In my grade school days, I thought of the geography text as a boy's best defense against having received a poor report card. When I was sent to a map to locate the Mississippi River, I fumbled around until I fell into it. How different from my little neighbor girl in the fourth year. Recently, my wife asked her what subject she liked best. "Oh, geography," she exclaimed, "we're studying all about Egypt and how the people live. Gee, I like it." On a Tuesday night's newscast this week, a girl from an eastern high school was being interviewed about her visit to the United Nations. "One thing I learned," she said, "is that we should throw away those old 1934 geography books we have in our school and get some new ones so that we could know something about the world as it is today." I hope that her school is unique in that respect.

I have sketched some of the things we are doing in Cleveland about geography in its relation to the social studies and the physical sciences. We know that a smaller world demands a larger citizenship, and we are using geography to make that ideal real. Like you, we shall ever keep before us the picture of that great fifteenth-century geographer, Columbus, who searched for a new and better way to an Old World and, in doing so, discovered a New World. If we but use the knowledge we have and summon the courage to be ever on the alert for new and better ways of reaching old goals, we, too, can bring our boys and girls into the harbors of a New World.

VERBALISM LOOMS

JOHN HAYES EDWARDS
Roxbury School, Johnstown, Pennsylvania

Psychologists, in discussing the accomplishments of children in geography and history, frequently mention the ease with which young children learn to bandy words which are really meaningless to them. The geography teacher is very likely to encounter this kind of learning and may accept it at face value. Perhaps this is especially true of us because we are preoccupied with teaching the skills peculiar to geography, as map and globe reading, work with statistics, picture reading and interpretation, and the special reading skills necessary to geographic learning. Simultaneously, the geography teacher is generally confronted with what seems like an overwhelming load of factual material.

Avoiding this pitfall—verbalism—is the teacher's hardest task, since its existence surely nullifies all that we have attempted to do, all that we have been developing special geographic tools for.

What are some ways in which we may avoid this pitfall?

During the year children in sixth grade in most parts of the United States are expected to spend some time studying the textile industry of the United Kingdom and later encounter the same industry in lesser detail in such countries as France, Italy, India, Japan, and others. To say the least, the textile industry is highly complicated. Its understanding not only involves a comprehension of the natural items that have led to its development but the cultural items that have encouraged its growth. The process itself is intricate and requires a somewhat lengthy vocabulary, even to attempt a discussion.

As a beginning just what is a *textile?* To initiate the unit the children were each given several small pieces of cloth. These were pulled apart, exposing the pattern of horizontal and vertical threads. We decided that the process of putting threads together in this way to make cloth is called weaving, an idea suggested by the children from their background of weaving simple paper mats in the primary grades.

To establish this concept further in their minds, other pieces of cloth were distributed to the children; these patches did not come apart in the same manner, however. By grasping an end of thread, we were able to ravel the second kind of cloth. Thus, con-

cretely, we could see the difference between a textile—cloth that has been woven—and cloth that has been knitted.

But how is weaving done? This natural question on the part of the children brought forth experiences on their part with looms. In a few days, our room held a collection of looms—commercially made metal frames, picture frames with shoe nails at the top and bottom, and wooden boxes similarly equipped. Some of the children even brought extremely simple looms made of heavy cardboard with the top and bottom cut in points to hold the vertical threads in place.

This collection made it obvious that essentially a *loom* is a frame on which weaving is done. The children were aware, of course, that a commercial loom must be much larger and must operate much faster. Even with a darning needle to guide the *woof* through the warp, or a flat, wooden stick, weaving was slow and tedious. (The needle or stick, incidentally, was correctly identified as a *shuttle.*)

To get across the idea of the separation of the warp to allow the shuttle to pass thru rapidly, we constructed "Tee Dee Looms" as a class project. These looms are constructed of tongue depressors according to simple directions available from the Arts Cooperative Association, New York, for a nominal fee. Merely a shift in position causes the threads to form a *shed,* allowing the shuttle to pass thru freely and speedily.

Needless to say, the children were fascinated by the ingenuity of their construction and the words *loom, woof, warp, shuttle,* and *shed* were theirs and theirs with meaning for some time to come. Yet we were far afield from commercial weaving.

In many text and supplementary books there are pictures of looms and interiors of textile plants. How much do they mean to a child? One of the older texts goes so far as to say, "It is impossible to describe a loom if you have never seen one work."

Fortunately in Johnstown we have a textile mill, one that specializes in weaving silk and rayon ribbon. With some knowledge of vocabulary and simple processes as background, what could be more natural than a journey to the plant to see actual weaving.

After contacting the school authorities and plant officials for permission to make the visit, we made our plans. The route to the mill was simple and direct, involving a short streetcar ride. We decided that we should like to know: (1) Where does the mill get

its raw materials? (2) What is done to those raw materials in the plant? (3) What power runs the machinery? (4) Where are the finished products sent?

The planning and preparation for the journey also provided an excellent opportunity for the children to discuss what qualities of good citizenship, leadership, and followership, would be followed on the trip.

Armed with pads for sketching and note taking, we set forth to find the answers to our questions. At the plant, the children were impressed with the noise of operation, which soon receded into the background of their consciousness and was later compared to music by one of the boys. When questioned by the class which had not thought it musical, he replied that he was thinking of the rhythm.

The children observed the hanks of thread as they were when they entered the plant. They observed the looms in operation and had the parts pointed out to them, some of which they recognized. They followed the completed ribbons thru the final stages of checking for defects, receiving samples all along the way.

The days following our return were used to clarify any remaining questions about our experiences and crystallized in a group report which, in the primary grades would be termed an experience chart. This was hand printed by the class on large sheets of wrapping paper, illustrated with enlargements of their on-the-spot sketches, and bound into book form.

With such a background and a vocabulary with which to work, we were ready to attack the whys and wherefors of the textile industry of the United Kingdom. Our experiences paid dividends when we met the industry in other countries and when we studied the Industrial Revolution in history.

ISAIAH BOWMAN
1878-1949

Dr. Isaiah Bowman, director of the American Geographical Society for twenty years and president of The Johns Hopkins University for the following thirteen years, died at Baltimore on January 6, a few days after his 71st birthday. The loss, not only to the geographical profession but to all who are concerned with the promotion of better understanding among men and nations, is incalculable.

No geographer was ever called upon by his government so frequently, or served it so untiringly and so fruitfully. Chief Territorial Adviser to the American Commission to Negotiate Peace after World War I; member of the Policy Committee of the Department of State, Chairman of the Department's Territorial Committee, and special adviser to the Secretary of State in World War II; member of the United States Delegation to the Dumbarton Oaks Conference and adviser to the United States Delegation to the United Nations Conference in 1945; and, finally, chairman of the Committee on Overseas Territories of the Economic Cooperation Administration—to mention some of the most important of the many posts to which the government called him. The whole geographical profession must take pride in the fact that, in all his services to the government, his contributions were always those of a geographer.

Dr. Bowman's work as director of the American Geographical Society was motivated at all times by his ideal that the Society should concern itself not only with the extension of the frontiers of geographical knowledge but also with public service and the national welfare. Evidence of his success in pursuing this twofold ideal is to be found in the thirty-five volumes of the Society's Research Series and Special Publications published during his directorship, several of which were under his own authorship; in the numerous research projects carried out at the Society under his direction, many of which widely influenced government policy both here and abroad, as well as institution and individual research and exploration as, for example, the studies of polar geography, the studies of problems of pioneer settlement, the great Millionth Map of Hispanic America; and in the public service to which the Society and the members of its staff have frequently been called.

Equally scholar and administrator, man of vision and man of action, Dr. Bowman will long be remembered for the many enterprises for which his creative imagination furnished the inspiration, and his genius for putting ideas into action assured the maximum of results.

RAYE R. PLATT

THE NATIONAL COUNCIL AT WORK

The Distinguished Service Award

The Distinguished Service Award, the highest honor the National Council of Geography Teachers bestows, is awarded for outstanding service in geographic education. Every member of the National Council has the privilege of nominating a geographer for the award. Accompanying the nomination there should be a full statement of the services rendered geographic education by the nominee. Nominations must reach the chairman of the *Committee on the Distinguished Service Award,* Alison Aitchison, Iowa State Teachers College, Cedar Falls, Iowa, *by June 1.* Other committee members for 1950 are Harry O. Lathrop, Illinois State Normal University, Normal, Illinois, George B. Cressey, Syracuse University, Syracuse, New York, J. Russell Whitaker, George Peabody College for Teachers, Nashville, Tennessee, and Otis W. Freeman, Eastern Washington College of Education, Cheney, Washington, Ex-officio and voting members are the President, Loyal Durand, Jr., University of Tennessee, and the Secretary, M. Melvina Svec, State Teachers College Oswego, New York.

The Distinguished Service Award to date has been presented to the following persons.

1932 William Morris Davis
1933 Ray Hughes Whitbeck
1934 Almon E. Parkins
1935 Douglas C. Ridgley
1936 Isaiah Bowman
1937 No award
1938 George J. Miller
1939 Mark Jefferson
1940 J. Russell Smith
1941 No award
1942 Ellsworth Huntington
1943 Wallace W. Atwood
1944 Gilbert Grosvenor
1945 Alison Aitchison
1946 Richard E. Dodge
1947 Alice Foster
1948 Stephen S. Visher
1949 Edith Putnam Parker

National Council Represented at Two Meetings

Miss Abigail Haldeman officially represented the National Council at the Aviation Education Conference of the National Education Association at Atlantic City, February 23 and 24.

Miss Helen Mixter, Supervisor of Geography in the Department of Education of the city of Baltimore, and Professor Emma Ehlers of the University of Delaware are the official delegates of the National Council at the meetings of the American Academy of Political and Social Science in Philadelphia on April 14 and 15.

Additional Contributing Members and Fellows

The following eleven persons have become contributing members since the list published in the February, 1950 JOURNAL was compiled.

A. E. Burdick	Frances M. Hanson	Dorothy McClure	Otis P. Starkey
Nels A. Bengtson	Lucia C. Harrison	John W. Morris	Jane Tulloch
R. S. Funderburk	Warren D. Kress	Paul Porochniak	

Since January 1, 1950 eight new fellows have been designated. The constitution states that "a member in good standing for five or more consecutive years is entitled to be designated fellow . . ." The new fellows are A. E. Burdick, Arkansas; A. W. Giles, Arkansas; Esther Aschemeyer, Indiana; Jeannette Strachan, Indiana; Sisters of the Presentation, Iowa; J. R. Schwendeman, Kentucky; R. J. Scarborough, Minnesota; and N. S. Holland, Texas.

LOYAL DURAND JR., *President*

EDITORIAL NOTES AND NEWS

Have you read Bulletin 1949 No. 12, "The Place of Subjects in the Curriculum?" It is prepared by the Office of Education, Federal Security Agency, Washington, D.C.

GEOGRAPHICAL PUBLICATIONS

Nels A. Bengtson and William van Royen. **Fundamentals of Economic Geography,** Third Edition. xxviii and 574 pp. Prentice-Hall, Inc., New York. 1950, $5.75.

With the publication of this completely revised edition of *Fundamentals of Economic Geography,* the scanty list of suitable postwar textbooks in this field is valuably enlarged. Beyond its timely service in helping to fill an unfortunate lack, the book constitutes a refinement of the earlier editions for which the authors deserve high praise. The appearance of the book has been entirely changed. The page size is larger, affording use of the popular two-column format and permitting enlargement or redrafting of maps to more legible scale, whereas the type also is new, and much more attractive than that of former editions. The content has been rearranged and three chapters added, with good result. Treatment of climates and agricultural production has been advanced to the first part of the book, which seems best since the climatic regions provide a highly useful system or framework of world distributions for beginning students. A new chapter introduces the basic and helpful concept of recurring association of particular climates, vegetation types, and soils from place to place over the world; another emphasizes the important geographic viewpoint of regional synthesis with respect to the location of the industrial districts. A third new chapter, contributed by Peveril Meigs, analyzes the relations of transportation and regional development, and includes a new world map of transport forms. Data on map projections, land survey, and longitude-time relations are contained in an appendix which replaces the extensive (nineteen pages) list of references, perhaps illogical in an elementary text, which appeared in the 1942 edition. In the new edition the chapters close with lists of selected references almost unique in their up-to-dateness, but in contrast to the many sources in the French, Dutch, German, Swedish and Italian languages listed in the former bibliography, these almost without exception refer to the American geographical journals. The statistical content of the book is excellent, data in most cases being brought up to 1946-1949; the FAO in particular is doing yeoman's service for geographers in this respect. Large numbers of new, carefully executed charts and graphs are used to illustrate recent economic tendencies. The emphasis thruout is well-balanced, altho certain small items may be misleading to students, for example, the inclusion of a half-page map of oilfields in northwestern Germany, whereas Burma is not mentioned among the oil producers, past or present. Careful editing and proofreading are evident in the very small number of cartographic and typographical errors, of which only one deserves mention: the mistreatment, surviving to the present edition, of the name of Rawlins, Wyoming (p. 21). Such criticisms are negligible. On the whole this book provides an excellent and useful text for students of economic geography at the undergraduate level, and will certainly attract new members to the ranks of the many users of preceding editions.

Willert Rhynsburger

Indiana University

Goetz, Delia, **World Understanding Begins With Children,** Bulletin 1949, No. 17, Federal Security Agency, Office of Education, 30 pp. For sale by Supt. of Documents, Washington 25, D.C. 15 cents.

This bulletin suggests many sources of material suitable for elementary schools and ways to use the materials. It is intended to encourage the teacher who is developing a program for world understanding for the first time, and to point out ways in which the experienced teacher may supplement and extend her program. Its primary aim is to help all teachers who have said, "I want to do something about international understanding."